		Page 1737
1	Q Good afternoon, Dr. Hennet.	J
2	A Good afternoon.	
3	Q I don't believe we've ever met before, have	
4	we?	
5	A We have not.	04:00PM
6	Q Preliminarily, Dr. Hennet, I'm going to talk	
7.	about a few things. You've used principal component	
8	analysis before yourself when you've done some	
9	environmental source investigations?	
10	A Yes, I have.	04:00PM
11	Q So you agree then, sir, that principal	
12	component analysis is a valid method to do an	
13	environmental investigation of sources?	
14	A It's a tool, which help.	
15	Q Yes. So it's a valid method?	04:00PM
16	A Sometimes it is perfectly fine.	
17	Q Have you published any papers in peer reviewed	
18	articles about principal component analysis?	
19	A I have not.	
20	Q When was the last time you actually performed	04:00PM
21	a principal component analysis similar to Dr.	
22	Olsen's analysis?	
23	A I've never done something similar to that, but	
24	recently I have used a version of principal	
25	component analysis to evaluate data. That was about	04:01PM

		Page 1738
1	a year ago.	
2	Q What site was that?	
3	A This site is a site which I believe is a	
4	Superfund site, but it's in Union City, Indiana. It	
5	was the the work was performed Union City, you	04:01PM
6	have a stream that passes in the middle of the city,	
7	and that stream is contaminated with PCB's. PCB's	•
8	are polychlorinated biphenyls. It's a group of	
9	chemicals.	
10	Q Thank you, sir.	04:01PM
11	A You asked me.	
12	Q That's as much information as I need. Thank	
13	you. In that particular site did you identify a	
14	source through principal component analysis?	
15	A Actually, principal component analysis was not	04:01PM
16	useful in that case, but it was done nevertheless.	
17	Q Okay. So when was the last time you used	
18	principal component analysis to identify or help you	•
19	identify a source of contamination at an	
20	environmental site?	04:02PM
21	A Well, you know, the first time I used it as I	
22	described	
23	Q The last time, not the first time, the last	
24	time.	
25	A I thought you asked me when it was useful.	04:02PM

		Page 1739
1	Q I asked you the last time you used principal	
2	component analysis yourself to identify the source	
3	of contamination at an environmental site.	
4	A Well, I cannot recall when I would have done	
5	that with the exception of the 1981 time frame. I	04:02PM
6	know I have used the tool as a tool like you use	
7	many tools because it's not a solution.	
8	Q It's been about 25 years that you've used PCA	
9	to identify a source?	
10	A That's not true. I just mentioned to you last	04:02PM
11	year I did some work with that.	Ť
12	Q But you didn't use it to identify a source in	
13	that particular instance?	
14	A It was done to attempt to identify sources,	
15	but it was not successful.	04:02PM
16	Q How many parameters did you use in that last	
17	time you attempted to identify a source?	3
18	A Well, with PCB's when you use this type of	
19	tools, you have 290 from PCB	
20	Q So you used all 290?	04:03PM
21	A No, because they were not all there.	
22	Q I asked you how many parameters you used when	
23	you tried to identified a PCB source a couple of	
24	years ago	
25	A Well	04:03PM

		Page 1771
1	common. Those parameters are in the geology, in the	
2	soil. They are common, and I think that's quite	
3	important.	
4	Q It's also very common and associated with	
5	poultry litter in a lot higher concentrations than	04:40PM
6	you find with background levels in the IRW; is that	
7	correct?	
8	A We don't know that really because	
9	Q Didn't you look at the data that Dr. Olsen had	
10	in his database concerning reference areas?	04:40PM
11	A I looked at that, yes.	
12	Q And there was a substantial difference between	
13	the concentrations of these three materials in	
14	poultry litter versus background levels in the	
15	watershed area; is that correct?	04:40PM
16	A Well, concentration is one thing. Fingerprint	
17	is another.	
18	Q You can answer the question yes or no.	
19	A Concentrations are different depending where	
20	you are.	04:41PM
21	Q There was a substantial difference; is that	
22	correct, sir?	
23	A You have a higher concentration in the chunk	
24	of poultry litter than you would have in a Lake	
25	Tenkiller sample of water.	04:41PM